## (19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 18 August 2005 (18.08.2005)

**PCT** 

## $\begin{array}{c} \textbf{(10) International Publication Number} \\ \textbf{WO 2005/074887 A2} \end{array}$

(51) International Patent Classification<sup>7</sup>: A61K 9/00

(21) International Application Number:

PCT/US2005/002900

(22) International Filing Date: 31 January 2005 (31.01.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/540,867 30 January 2004 (30.01.2004) US 60/540,765 30 January 2004 (30.01.2004) US

- (71) Applicant (for all designated States except US): RUT-GERS, THE STATE UNIVERSITY [US/US]; Old Queens Building, Somerset and George Streets, New Brunswick, NJ 08903 (US).
- (71) Applicants and
- (72) Inventors: UHRICH, Kathryn, E. [US/US]; 1441 Evergreen Avenue, Plainfield, NJ 07060 (US). MOGHE, Prabhas [US/US]; 7 Huntington Road, Basking Ridge, NJ 07920 (US).
- (74) Agents: STEFFEY, Charles, E. et al.; P.O. Box 2938, Minneapolis, MN 55402 (US).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## **Published:**

without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: AMPHIPHILIC MACROMOLECULES

(57) Abstract: Biomedical uses of amphiphilic macromolecules include the use of such macromolecules in the form of nanoparticle formulations for the sequestration and/or removal of LDL, and for the treatment and prevention of atherosclerosis and atherosclerotic development. The invention also provides the use of amphiphilic macromolecule encapsulates for treating diseases including cancer and inflammation, as well as targeted amphiphilic macromolecules and their use in therapy.

